DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: STONE POND	Lake Area (ha):	8.38
Town: FITZWILLIAM	Maximum depth (m):	1.4
County: Cheshire	Mean depth (m):	0.5
River Basin: Connecticut	Volume (m³):	38500
Latitude: 42°45'25" N	Relative depth:	0.4
Longitude: 72°07'40" W	Shore configuration:	1.95
Elevation (ft): 1035	Areal water load (m/yr):	164.0
Shore length (m): 2000	Flushing rate (yr^{-1}) :	359.0
Watershed area (ha): 2579.6	P retention coeff.:	0.12
% watershed ponded: 2.2	Lake type: natural	w/dam

BIOLOGICAL:	4 February 1992	6 September 1991
DOM. PHYTOPLANKTON (% TOTAL) #:	. SPARSE - NO DOMINANT	SYNURA 45%
#2		FILAM. BL-GR. SPP. 20%
#:		·
PHYTOPLANKTON ABUNDANCE (cells/mL		
CHLOROPHYLL-A (µg/L)		1.04
DOM. ZOOPLANKTON (% TOTAL) #	NONE OBSERVED	NAUPLIUS LARVAE 45%
#:	2	KERATELLA 30%
#		(NO CELL COUNTS)
ROTIFERS/LITER	<1	
MICROCRUSTACEA/LITER	<1	
ZOOPLANKTON ABUNDANCE (#/L)	<1	
VASCULAR PLANT ABUNDANCE		Abundant
SECCHI DISK TRANSPARENCY (m)		0.7
BOTTOM DISSOLVED OXYGEN (mg/L)	12.3	1.2
BACTERIA (fecal col., #/100 ml) #		75
#	2	
#	3	

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m^3) : None Anoxic volume (m^3) : None

HEMICAL: Lake: STONE POND Town: FITZWILLIAM					
	4 Febru	ary 1992	6 September 1991		
DEPTH (m)	1.0		1.0		
pH (units)	5.6		5.4		
A.N.C. (Alkalinity)	1.9		1.7		
NITRATE NITROGEN	0.03		< 0.05		
TOTAL KJELDAHL NITROGEN					
TOTAL PHOSPHORUS	0.012		0.043		
CONDUCTIVITY (µmhos/cm)	72.1		51.7		
APPARENT COLOR (cpu)	47		250		
MAGNESIUM			0.41		
CALCIUM			2.1		
SODIUM			6.3		
POTASSIUM			0.79		
CHLORIDE	14		9		
SULFATE	7		2		
TN : TP					
CALCITE SATURATION INDEX			5.3		

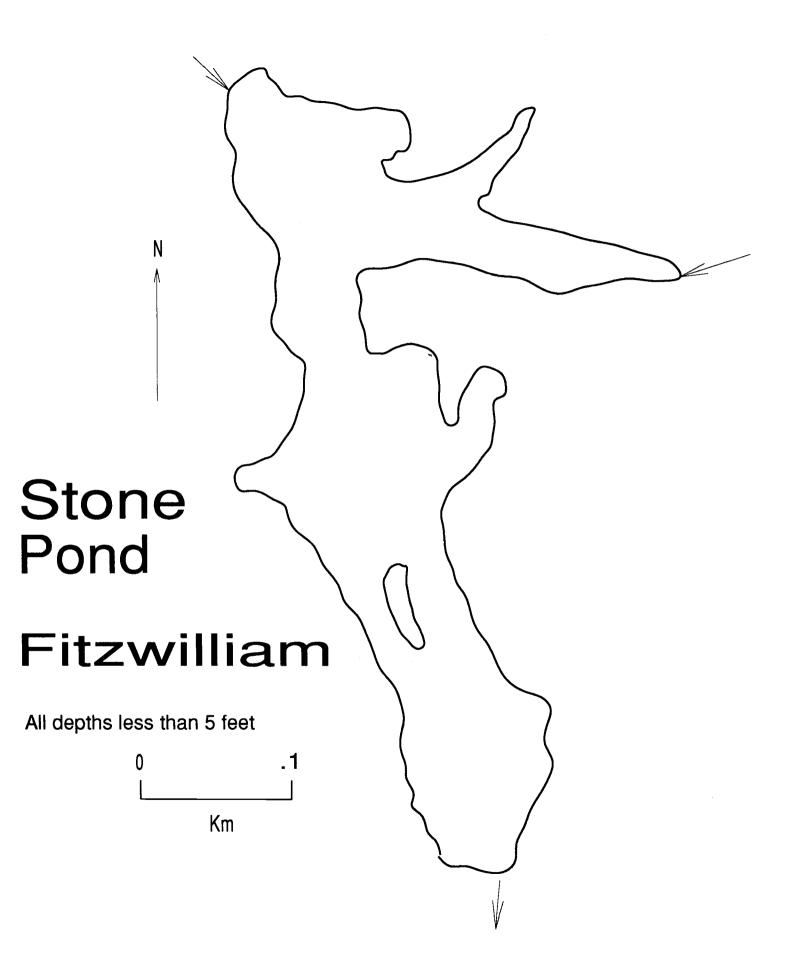
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1991

991	D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
	**	5	5	0	10	Eutro.

COMMENTS:

- 1. Also known as Mill Pond.
- 2. Extremely dark tea-colored water.
- 3. Observed wood chips when pulling up the anchor.
- 4. No public access; pond can be accessed by a short overland portage from the road with a canoe or light boat.
- 5. Wholewater plankton was sparse with no dominant; mostly tiny flagellates were present. No cell counts were made.



FIELD DATA SHEET

LAKE: STONE POND DATE: 09/06/91

TOWN: FITZWILLIAM WEATHER: PARTLY SUNNY & WARM

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	19.9	5.8	62 %
	0.5	18.9	5.0	53 %
	1.0	18.2	4.8	50 %
	1.5	16.9	1.2	12 %
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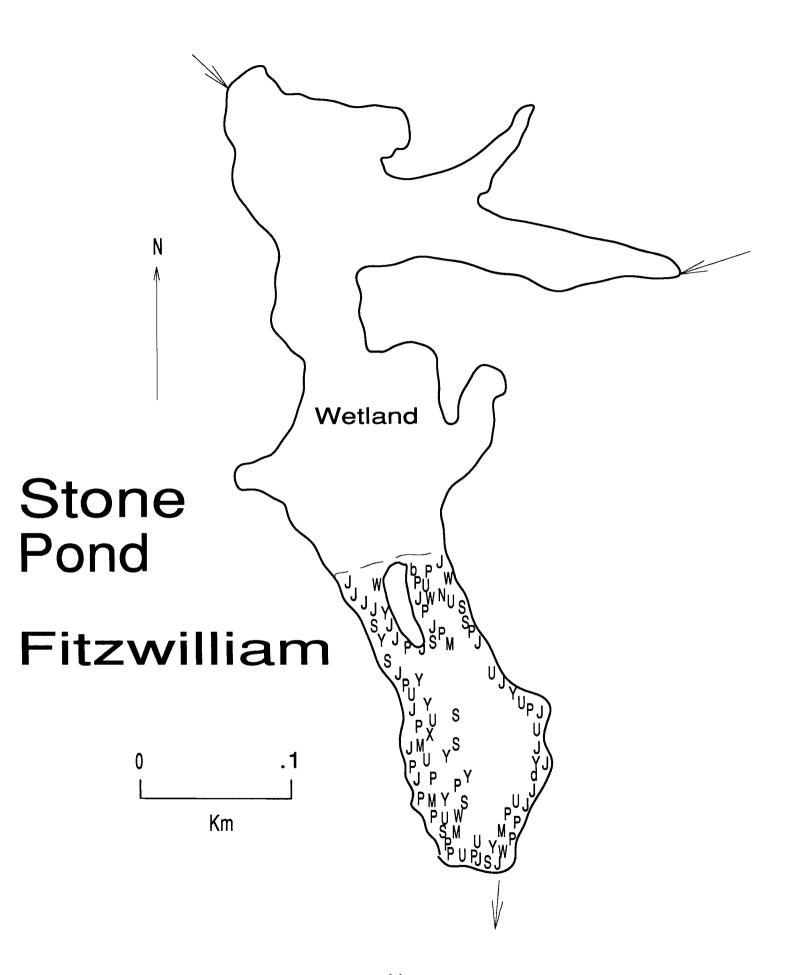
COMMENTS:

SECCHI DISK (m): 0.7

BOTTOM DEPTH (m): 1.6

TIME: 1130

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAK	E: STONE POND	TOWN: FITZWILLIAM	DATE: 09/06/91	
Key	PLANT	NAME	ABUNDANCE	
Key	GENERIC	COMMON		
P	Pontederia cordata	Pickerelweed	Scattered	
ប	Utricularia	Bladderwort	Common	
S	Sparganium	Bur reed	Scattered	
J	Juncus	Rush	Common	
Y	Nuphar	Yellow water lily	Sparse	
M	Myriophyllum humile	Water milfoil	Scattered	
d	Dulichium arundinaceum	Three-way sedge	Sparse	
N	Nymphaea	White water lily	Sparse	
W	Potamogeton	Pondweed	Sparse	
X		Sterile thread-like leaf	Sparse	
Т	Typha	Cattail	Sparse	
b	Scirpus	Bulrush	Sparse	
1		OVERALL ARIMDANCE.	Abundan+	

OVERALL ABUNDANCE: Abundant

GENERAL OBSERVATIONS:

- 1. The upper 2/3 of the pond was essentially a wetland with very abundant plant growth. Plants were not mapped in this area.
- 2. The plant listings and abundances above are for the lower 1/3 of the pond.